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10/755,638	01/12/2004	Matthew F. Hogge	B03-85	3279

7590

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EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/755,638

Applicant(s)

HOGGE ET AL.

Examiner

Alvin A. Hunter

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-17 is/are rejected.
- 7) ☒ Claim(s) 18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The indicated allowability of claims 7, 8 and 17 are withdrawn in view of the newly discovered reference(s) to Power et al. (USPN 562445) and Feeney et al. (USPN 6232389). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-7, 9, 10, and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5820488) in view of Feeney et al. (USPN 6232389) further in view of Powers et al. (USPN 5162445).

Regarding claims 6, 7, 9, and 17 Sullivan et al. discloses a golf ball comprising a cover layer encasing a subassembly wherein the subassembly comprises a barrier layer encasing a core wherein the barrier layer is formed from a composition comprising vinylidene chloride polymer (See Entire Document). Sullivan et al. also notes that other compositions with low permeability may be also used as the barrier layer. Feeney et al. discloses a barrier composition comprising an elastomeric component and a filler component wherein the elastomeric component may be of polymers such as butyl rubber (an olefin) or vinyl thermoplastic polymers and the filler component is mica flakes (See Columns 6 through 8). One having ordinary skill in the art would have found it obvious to substitute or combine butyl rubber of Feeney et al. for/or with the vinylidene

Art Unit: 3711

chloride polymer of Sullivan et al. in order to improve the permeability of the layer.

Feeney et al. also notes that the butyl rubber may be halogenated but does not explicitly disclose that the polymer has a benzylic bromine functionality. Powers et al. discloses a copolymer of a C4 to C7 iso-olefin and a para-alkylstyrene (paraffinic hydrocarbon polymer) wherein the polymer has benzylic halide functionality, wherein the halides include bromine (See Summary of the Invention). It is also noted that the iso-olefin comprises an isobutylene. One having ordinary skill in the art would have found it obvious to having a polymer with benzylic bromide functionality, as taught by Powers et al., in order to improve the compatibility of the butyl rubber.

Regarding claims 3-5, Feeney et al. discloses the halogenated polymer being butyl rubber in which the applicant admits to having a conjugated multi-olefin. Evidence is submitted in paragraph bridging pages 5 and 6. Therefore, it is submitted that Feeney et al. is inherently the same. The applicant also admits to butyl rubber having a multi olefin of about 4 to 14 carbon atoms and an iso-olefin of about 4 to 7 carbon atoms. Evidence is submitted in paragraph bridging pages 5 and 6. Therefore, it is submitted that Feeney et al. inherently has the same content. Additionally, Powers discloses the composition containing 4 to 7 carbon atoms.

Regarding claim 10, Sullivan et al. discloses the moisture vapor rate less than $0.2\text{g}\cdot\text{mil}/100\text{ in}^2\cdot\text{day}$ (See Summary of the Invention). Additionally, Applicant admits that butyl rubber typically has a moisture vapor transmission rate of about 0.001 to $0.100\text{ grams}\cdot\text{mm}^2/\text{m}^2\cdot\text{day}$. Evidence is submitted on page 6, lines 27 and 28 of

Art Unit: 3711

applicant's specification. Therefore, it is submitted that Feeney et al. inherently has the same vapor transmission rate.

Regarding claim 12, Powers discloses the polymer having an average molecular weight of at least 25000 (See Summary of the invention). Additionally, applicant admits that butyl rubber generally has a molecular weight of 20,000 to 500000. Evidence is submitted in paragraph bridging pages 5 and 6. Therefore, it is submitted that Feeney et al. inherently has the same molecular weight.

Regarding claim 13, the composition created by the combining of Sullivan, Feeney et al., and Powers et al. inherently forms a tortuous path against moisture vapor encroachment.

Regarding claim 14, the limitation refers to a product by process. It is submitted that the above combination meets the limitation being that the final product is the same.

Regarding claim 15, applicant admits that butyl rubber has about 30 to 0.5% of a multi-olefin and 70 to about 99.5% by weight of iso-olefin. Evidence is submitted in paragraph bridging pages 5 and 6. Therefore, it is submitted that Feeney et al. inherently has the same content.

Regarding claim 16, applicant admits that butyl rubber is amorphous and non-polar. Evidence is submitted in paragraph bridging pages 5 and 6. Therefore, it is submitted that Feeney et al. is inherently the same.

Claims 3-7, 9-11, and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5820488) in view of Feeney et al. (USPN 6232389) further in view of Puydak et al. (USPN 4593062).

Art Unit: 3711

Regarding claims 6, 7, 9, and 11, Sullivan et al. discloses a golf ball comprising a cover layer encasing a subassembly wherein the subassembly comprises a barrier layer encasing a core wherein the barrier layer is formed from a composition comprising vinylidene chloride polymer (See Entire Document). Sullivan et al. also notes that other compositions with low permeability may be also used as the barrier layer. Feeney et al. discloses a barrier composition comprising an elastomeric component and a filler component wherein the elastomeric component may be of polymers such as butyl rubber (an olefin) or vinyl thermoplastic polymers and the filler component is mica flakes (See Columns 6 through 8). One having ordinary skill in the art would have found it obvious to substitute or combine butyl rubber of Feeney et al. for/or with the vinylidene chloride polymer of Sullivan et al. in order to improve the permeability of the layer. Feeney et al. also notes that the butyl rubber may be halogenated but does not explicitly disclose that the polymer has a benzylic bromine functionality. Puydak et al. discloses a dynamically vulcanizable thermoplastic elastomer comprising a halogenated butyl rubber (See Entire Document). Puydak et al. discloses the butyl rubber having bromine functionality. Applicant also admits that such butyl rubber have about less than 3% reactive halogen. Evidence is submitted on page 6, lines 8 through 19 of the applicant's specification. Therefore, it is submitted that Puydak et al. inherently meets the limitation. One having ordinary skill in the art would have found it obvious to having a dynamically vulcanized thermoplastic elastomer with less than 3% reactive halogen, as taught by Puydak et al., in order to improve flow and molding characteristics of the composition.

Art Unit: 3711

Regarding claims 3-5, Puydak et al. discloses the halogenated polymer being butyl rubber having a conjugated multi-olefin. The butyl rubber has a multi-olefin of about 4 to 7 carbon atoms and an iso-olefin of about 4 to 7 carbon atoms.

Regarding claim 10, Sullivan et al. discloses the moisture vapor rate less than $0.2\text{g}\cdot\text{mil}/100\text{ in}^2\cdot\text{day}$ (See Summary of the Invention). Additionally, Applicant admits that butyl rubber typically has a moisture vapor transmission rate of about 0.001 to $0.100\text{ grams}\cdot\text{mm}^* / \text{m}^2\cdot\text{day}$. Evidence is submitted on page 6, lines 27 and 28 of applicant's specification. Therefore, it is submitted that Feeney et al. inherently has the same vapor transmission rate.

Regarding claim 12, applicant admits that butyl rubber generally has a molecular weight of 20,000 to 500,000. Evidence is submitted in paragraph bridging pages 5 and 6. Therefore, it is submitted that Feeney et al. inherently has the same molecular weight.

Regarding claim 13, the composition created by the combining of Sullivan, Feeney et al., and Puydak et al. inherently forms a tortuous path against moisture vapor encroachment.

Regarding claim 14, the limitation refers to a product by process. It is submitted that the above combination meets the limitation being that the final product is the same.

Regarding claim 15, Puydak et al disclose that butyl rubber has no more than 30% of a multi-olefin and 85 to about 99.5% by weight of iso-olefin (See Column 8, lines 41 through 61).

Regarding claim 16, applicant admits that butyl rubber is amorphous and non-polar . Evidence is submitted in paragraph bridging pages 5 and 6. Therefore, it is

Art Unit: 3711

submitted that Feeney et al. is inherently the same.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5820488) in view of Feeney et al. (USPN 6232389).

Regarding claim 8, Sullivan et al. discloses a golf ball comprising a cover layer encasing a subassembly wherein the subassembly comprises a barrier layer encasing a core wherein the barrier layer is formed from a composition comprising vinylidene chloride polymer (See Entire Document). Sullivan et al. also notes that other compositions with low permeability may be also used as the barrier layer. Feeney et al. discloses a barrier composition comprising an elastomeric component and a filler component wherein the elastomeric component may be of polymers such as butyl rubber (an olefin) or vinyl thermoplastic polymers and the filler component is mica flakes (See Columns 6 through 8). One having ordinary skill in the art would have found it obvious to substitute or combine butyl rubber of Feeney et al. for/or with the vinylidene chloride polymer of Sullivan et al. in order to improve the permeability of the layer. Feeney et al. also notes that the butyl rubber may be halogenated but does not explicitly disclose that the polymer has branched styrenic blocks. Applicant does not note what advantages the styrenic blocks contribute to the invention over any other type of butyl rubber. The butyl rubbers disclosed by Feeney et al. provide moisture resistance in the same manner as that of claim 8. One having ordinary skill in the art would have found the polymer containing styrenic blocks to be a matter of design choice being that Feeney et al. provide the same results and properties.

Allowable Subject Matter

Art Unit: 3711

Claims 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich, can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Application/Control Number: 10/755,638

Page 9

Art Unit: 3711

AAH

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